

7. DESCRIPTIONS OF NEW SPECIES OF SHELLS, CHIEFLY FROM AUSTRALIA, IN THE COLLECTION OF MR. ANGAS. BY ARTHUR ADAMS, R.N., F.L.S., ETC., AND GEORGE FRENCH ANGAS.

1. TRITON WATERHOUSEI, Ad. & Ang.

T. testa ovato-fusiforimi, rimata, epidermide fusca squamato-pilosa induta, pallide castanea, spira elata aperturam æquante; anfractibus convexis, postice planatis, longitudinaliter subplicatis, liris prominentibus transversis ad plicas nodulosis ornatis; liris crenulatis duabus magnis duplicibus cum tribus parvis alternantibus, interstitiis cancellatis; anfractu ultimo varice conspicuo compresso fimbriato instructo; apertura ovata, intus alba; labio antice lævi, canali angusto; labro margine late varicoso, intus nodoso-lirato.

Long. 3 inches, lat. 1 inch 9 lines.

Hab. Port Lincoln (*Coll. Angas.*).

Differs from *T. spengleri* in the squamato-pilose epidermis, in the broad flattened varix of the outer lip, in the double liræ of the whorls, and in the inner lip being smooth anteriorly. It is named after Mr. F. G. Waterhouse, the South Australian naturalist and explorer.

2. TRITON STRANGEI, Ad. & Ang.

T. testa ovata, solida, umbilicata, albida; anfract. 4, convexis, longitudinaliter subplicatis, costis transversis magnis trisulcatis, interstitiis lirulis duabus transversis crenulatis ornatis; anfractu ultimo varice unico crasso rotundato conspicuo instructo; apertura parva, rotundato-ovata, canali angusto valde recurvato; labro extus late varicoso, intus plicato.

Long. $1\frac{1}{2}$ inch, lat. 1 inch.

Hab. Moreton Bay (*Coll. Angas.*).

Characterized by its small plicate aperture, its recurved beak, and the peculiar sculpture of the whorls. We dedicate this species to the memory of the late lamented Frederick Strange, who lost his life in the cause of science at the Percy Islands, on the north-eastern coast of Australia.

3. NERITULA (CALLOMPHALA) LUCIDA, Ad. & Ang.

N. testa orbiculari, depressa, imperforata, spira parva apice acuto, alba, semipellucida, nitida, radiatim creberrime striata; anfractibus 4, planis, ultimo ad peripheriam obtuse angulato, suturis impressis, regione umbilicali callo albo opaco granuloso obtecta; apertura circulari, antice integra; labio callo parvo angulato instructo; labro supra anfractum penultimum reflexo, margine callo albo incrassato instructo.

Long. 1 line, lat. 2 lines.

Hab. Coodgee Bay, N. S. Wales, in shell-sand (*Coll. Angas.*).

This little shell differs from the other species of *Neritula* in the

aperture being entire in front, as in *Teinostoma*, on which account we have proposed to give it subgeneric rank under the name of *Cal-lomphala*.

4. CATILLUS ORNATUS, Ad. & Ang.

C. testa ovata, tenui, luteo-virescente, lineis nigris transversis undulatis ornata, superficie decussata, apice prominulo ad sinistram inclinato; apertura intus cæruleo-alba.

Long. 8 lines, lat. 6 lines.

Hab. Viti-Lifu, Fijis (*Coll. Angas.*).

This species is remarkable for the beauty of its painting and the finely decussated character of the surface.

5. NERITELLA (DOSTIA) LIFUENSIS, Ad. & Ang. *BZ 1453*

N. testa capuliformi, oblongo-ovata, subdepressa, apice eroso ad sinistram inclinato, obscura, fusca, radiatim nigro fasciata; apertura ochracea; labio plano, aurantiaco, lateribus dilatatis.

Long. 1 inch, lat. 8 lines.

Hab. Lifu (*Coll. Angas.*).

An interesting addition to the limited group named *Dostia* by Dr. Gray, characterized by its broad flattened inner lip and its *Catillus*-like form. The operculum is that of *Neritella*.

6. GIBBULA NITIDA, Ad. & Ang.

G. testa elato-conoidali, apice obtuso, late umbilicata, lævi, nitida, luteo-viridescente, purpureo rubroque in flammulas longitudinales et lineas transversas interruptas dispositis varie picta; anfractibus tumidulis, transversim striatis, ultimo ad peripheriam obtuse angulato, basi convexa, umbilici margine angulato; apertura rotundato-quadrata, intus vivide iridescente; labio simplici; labro intus sulcato.

Long. $2\frac{1}{2}$ lines, lat. $2\frac{1}{2}$ lines.

Hab. Hokianga, New Zealand (*Coll. Angas.*).

A beautifully painted small shining species, of an elevately conoidal form, and with the interior of the aperture vividly iridescent as in *Elenchus*.

7. GIBBULA PICTURATA, Ad. & Ang.

G. testa depresso-conica, late umbilicata, viridescente, carmineo purpureo alboque sæpe in flammulas longitudinales et fascias transversas interruptas dispositis varie picta; anfractibus convexis, transversim valde sulcatis, ultimo cingulo prominulo albo rubroque articulato instructo; basi planiuscula; apertura rotundato-quadrata, intus iridescente; labio simplici; labro intus sulcato.

Long. 3 lines, lat. 3 lines.

Hab. On seaweed, low water, Port Jackson (*Coll. Angas.*).

A small richly painted species, differing from *G. nitida* in form,

in the whorls being strongly transversely sulcate, and in the surface not being polished.

8. THALOTIA MUNDULA, Ad. & Ang.

T. testa elato-conica, subperforata, albida, flammulis purpureis longitudinalibus obsolete picta; anfractibus planis, in medio concavis, ad suturas cingulo rotundato prominulo succinctis, transversim liratis, liris æqualibus subgranulosis, basi lirulis concentricis cum interstitiis radiatim striatis ornata; apertura subquadrata; labio arcuato, antice in dentem obtusum desinente; labro intus obsolete sulcato.

Long. 6 lines, lat. $4\frac{1}{2}$ lines.

Hab. Sharks' Bay, Western Australia (*Coll. Angas.*).

Characterized by the rounded elevated ridge at the sutures, the transverse granular liræ, and the obscure flame-like longitudinal markings.

9. TROCHOCOCHLEA EXCAVATA, Ad. & Ang.

T. testa depresso-conoidea, imperforata, viridi-cinerea, maculis atro-purpureis undulatis confertis longitudinalibus ornata; anfractibus convexiusculis, transversim sulcatis, ultimo magno, ad peripheriam acute angulato, basi plana; apertura subquadrata, perobliqua; labio albo, lato, excavato; labro intus lævi.

Long. 3 lines, lat. 4 lines.

Hab. New Zealand (*Coll. Angas.*).

A depressed species, with a concave base, and with the inner lip excavated.

10. CANTHIRIDUS DECORATUS, Ad. & Ang.

C. testa turbinato-conoidea, imperforata, cupreo-aurantiaca, flammulis longitudinalibus albo articulatis, in anfractu ultimo fascia lata albo articulata et serie transversa macularum quadratarum albarum ornata, apice carneola tincto; anfractibus planis, transversim sulcatis, sulcis distantibus postice obsoletis, anfract. ultimo ad peripheriam rotundato; apertura subquadrata; labio vix recto, in medio calloso; labro intus sulcato.

Long. 3 lines, lat. 2 lines.

Hab. York Peninsula, South Australia (*Coll. Angas.*).

A small but beautifully ornamented species, of a rich golden-orange colour, marked with white spots and flammules.

11. CYLINDROBULLA FISCHERI, Ad. & Ang.

C. testa cylindracea, fragili, tenui, alba, semipellucida, antice truncata, postice rotundata et radiatim striata, striis prope extremitatem posticam abrupte desinentibus; apertura in medio lineari, vix clausa, antice dilatata.

Long. 3 lines, lat. $1\frac{1}{2}$ line.

Hab. South Australia.

This species differs from the *C. beani*, Fisch., which is the only other described, and which inhabits Guadaloupe, in being white, in the spire being more conspicuous, and especially in the posterior extremity being strongly striate, the striæ ending abruptly at the distance of about a line from the suture.

12. *HELIX (CORASIA) ANADYOMENE*, Ad. & Ang.

H. testa orbiculari, depresso-conica, imperforata, alba, epidermide tenui straminea pellucida obtecta; anfractibus 4, planis, longitudinaliter tenuissime striatis; ultimo antice dilatato, ad peritrema constricto, ad peripheriam angulato et carina filiformi conspicua ornato; apertura subquadrata; labio callo umbilici regionem tegente; labro in medio angulato, margine valde reflexo et incrassato.

Long. 6 lines, lat. 1 inch.

Hab. Guadalcanar, Solomon Islands (*Coll. Angas.*).

This elegant species somewhat resembles in form *H. aphrodite*, Pfr., from which, however, it differs in the whorls being more convex, and in the keel and peritreme not being of an opaque-white; the aperture moreover is less produced and angular.

13. *BULIMINUS (CHONDRULA) LEPIDULA*, Ad. & Ang.

B. testa turrata, pupiformi, umbilicata, tenui, nitida, semipellucida, cornea; anfractibus 5, valde convexis, longitudinaliter striatis; apertura rotundato-ovata, peristomate interrupto, albo, late reflexo; labio superne callo parvo albo tuberculiformi munito.

Long. 2 lines, lat. 1 line.

Hab. Sharks' Bay, North-west Australia (*Coll. Angas.*).

This little species differs from *C. adelaidæ* in being semipellucid, shining, and of a horn-colour. The whorls moreover are much more strongly convex.

14. *SUCCINEA STRIGILLATA*, Ad. & Ang.

S. testa ovato-conica, tenui, semipellucida, pallide luteo-cornea, spira aperturam vix æquante, apice papilloso; anfractibus 3½, valde convexis, longitudinaliter strigillatis; apertura oblongo-ovata; labio callo tenui longo instructo; labro simplici.

Long. 5 lines, lat. 2½ lines.

Hab. Sharks' Bay, North-west Australia (*Coll. Angas.*).

A species somewhat allied to *Succinea strigata*, Pfr., from South Australia, having the same papillary apex; but differing in being smaller, thinner, of a lighter colour, and in the whorls being less strongly strigose.

15. *LEPTOPOMA DOHRNI*, Ad. & Ang. *B.M. 1953*

L. testa depresso-turbinata, profunde umbilicata, pallide fulvo-olivacea, spira brevi conica; anfractibus convexiusculis, transversim obsolete liratis, anfractu ultimo ad peripheriam valde

carinato; apertura patula, peritremate late dilatato et reflexo, regione umbilicali excavata.

Long. $7\frac{1}{2}$ lines, lat. 9 lines.

Hab. New Ireland (*Coll. Angas.*).

A larger species than *L. panayense*, Sow., which it somewhat resembles in form. The last whorl is very strongly carinated at the periphery, and the peritreme is not dark-coloured. We have named the species in compliment to Dr. Dohrn, who has made the operculated land-shells an especial object of study.

16. PHYSA INFLATA, Ad. & Ang.

P. testa oblongo-ovata, umbilicata, tenui, semipellucida, viridicornea, anfractibus supremis fuscis opacis, epidermide pilosa obtecta, pilis in lineis transversis dispositis; anfractibus 4, valde convexis, longitudinaliter striatis et lineis transversis æquidistantibus punctatis instructis, anfractu ultimo magno ventricoso inflato; apertura ovata; labio late reflexo, umbilicum obtegente; labro simplici.

Long. 8 lines, lat. 6 lines.

Hab. Wakefield River, South Australia (*Coll. Angas.*).

A fine inflated bulbous species with the upper whorls usually semi-opaque and fuscous, and the lower whorls more pellucid and of a pale greenish horn-colour. The epidermis is ornamented with regular transverse rows of short hairs.

17. THECALIA MACROTHERCA, Ad. & Ang.

T. testa oblonga, perinæquilaterali, pallide carnea, epidermide fulva tenui induta, radiatim valde costata, costis nodoso-squamosis, latere antico brevissimo subauriculato, postico longiore dilatato ad extremitatem rotundato, margine ventrali antice sinuato et crenato, theca interna magna infundibuliformi; apertura ovata, expansa.

Alt. 4 lines, lat. 6 lines.

Hab. Rapid Bay, South Australia (*Coll. Angas.*).

The cup-shaped appendage is much larger in the female, which in the Cape species is frequently found filled with ova. In the male of *Thecalia concamerata* which we have examined, the ventral margin is also folded on itself; but the cup is much narrower, and appears never to contain any ova.

18. UNIO (ALASMODON) EVANSI, Ad. & Ang.

U. testa transversim ovata, compressa, tenui, viridi-olivacea, ad umbones pallidiore, umbonibus vix erosis, concentricè crebre plicata, lirulis duabus subnodulosis radiantibus ornata; latere antico parvo et rotundato, postico dilatato et oblique truncato, margine ventrali valde arcuato.

Alt. $1\frac{1}{2}$ inch, lat. 2 inches 3 lines.

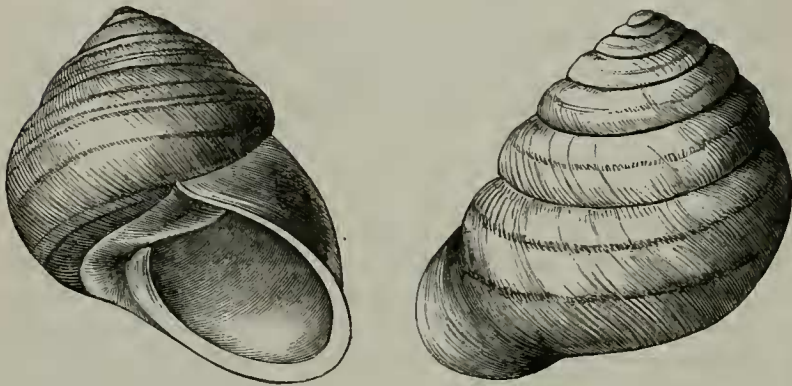
Hab. Lagoon of the Lower Murray River (*Coll. Angas.*).

This light olive-brown compressed species, which is characterized by the posterior side-angle being somewhat winged, is named after Henry Evans, Esq., an old colonist and a relative of one of the authors, who has derived considerable assistance in collecting specimens of natural history from his willing co-operation.

8. ON A SUPPOSED NEW SPECIES OF THE GENUS HELIX FROM NORTH-EASTERN AUSTRALIA. BY JAMES C. COX, M.D., F.R.C.S. EDINB., SECRETARY TO THE ENTOMOLOGICAL SOCIETY OF NEW SOUTH WALES.

HELIX FORBESII.

H. testa obtecte umbilicata, globulosa, solida, sub epidermide lutescente alba, lineis fuscis cincta; spira obtusa; anfractibus septem; apertura lunato-rotundata, intus alba; peristomate undique expanso, margine columellari superne dilatato.



Shell with a covered umbilicus, globular, solid; white beneath a yellowish epidermis, encircled with brown lines; spire obtuse; whorls seven; aperture lunar rounded, white within; lip expanded throughout, columellar margin dilated at the top.

Hab. Port Denison, Queensland.

This shell, which I have named after the late Prof. Edward Forbes, and of which I have a large number of specimens, was found on the trunks of the native fig-trees at Port Denison. I believed it at first to be only a local variety of *H. lessoni*; but on more careful investigation I have found it to be a very well-marked new species, and I am unable to find any record of its having been before described.